Dennis
Beth

m/023/007

jbr environmental consultants, inc.

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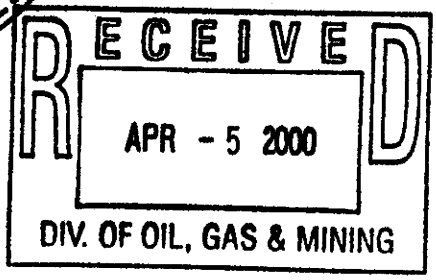

March 30, 2000

Mr. Don Ostler, P.E.
Executive Secretary
Department of Environmental Quality
Division of Water Quality
288 North 1460 West
P.O. Box 144870
Salt Lake City, Utah 84114-4870

Re: Notice of Violation and Order, Docket No. UGW-20-04

Dear Mr. Ostler:

Mr. Stephen Flechner of North Lily Mining Company has requested that I transmit the attached response to Order 2 of the subject Notice of Violation and Order. The attached document describes the repair and quality control procedures used by North Lily Mining Company to repair leach pad and pond liners at its Silver City Heap Leach facility.

Sincerely,

Robert J. Bayer
Managing Principal

Attachment

cc: Mr. Stephen Flechner - North Lily Mining Co.
Mr. Michael Keller - VanCott Bagley Cornwall & McCarthy

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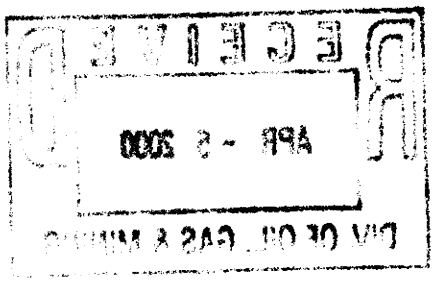
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DIV OF OIL, GAS & MINING

NORTH LILY MINING COMPANY

Repair and QA/QC Procedures for Polyvinyl Chloride (PVC) Solution Pond and Leach Pad Liners

General

PVC pond liner repairs are accomplished using 30-mil PVC sheeting as the patch material and a splicing solvent as the adhesive. The splicing solvent currently being used is manufactured by Watersaver Company, Inc.: WS-70B Splicing Solvent. Active ingredients are tetrahydrofuran cyclohexanone and dimethyl sulfoxide. This adhesive or an equivalent product is used for all joint, tear, and puncture repairs.

Manufacturer's Instructions

The manufacturer provides the following instructions:

> Position panels with min. 3" overlap. Insert top between lap. squeeze 1/4" beed [*sic*] continuously. Immediately press with rag to create ½" wide continuously cemented strip in splice. DO NOT PEEL FOR 24 HOURS. Best Results when used above 50°F. Avoid wrinkles. Do not over apply. Make splice over smooth surface.

Installation Procedure

When a tear, puncture or seam separation is identified it is repaired in the following manner:

- The appropriately sized PVC patch, if necessary, is selected.
- The surfaces to be joined are thoroughly cleaned.
- Sections/patches to be joined are typically overlapped no less than three inches. Large patches are overlapped three inches or more. For small punctures where patches are often less than one foot in diameter, overlaps may be as little as two inches.
- For large patches and seam repair, multiple, parallel beads of adhesive are applied to extend the width of the seal to two or more inches. Wrinkles are "worked out" prior to application of the adhesive and surfaces beneath the splice are ordinarily smooth because the liners were installed over a compacted soil liner.
- Every effort is made to apply adhesive at temperatures above 50°F and at times when temperatures are expected to persist above 50°F for at least a number of hours after the adhesive is applied. Small repairs may be made during cold weather when absolutely necessary. Under these conditions, either an electric hair dryer or a soldering torch is used to heat the PVC material. After the adhesive is applied and pressed into place, an electric hair dryer is used in an effort to maintain an elevated temperature at the joint until the adhesive begins to set up (this becomes apparent when lateral movement does not readily occur at the joint).

Seam Integrity Checking

Approximately one day after the any patch or seal is installed, the joints are carefully examined visually and the seals are tested to ensure that a bond has formed. The integrity of the seal is tested by attempting to peel the patch or splice apart by hand. If seals are able to be peeled, then additional adhesive is applied and the peel test is repeated approximately 24 hours later. If the joint is not sealed following the second peel test, the patch is removed and a new patch is installed following all of the steps described above. This process is repeated until the seal integrity is demonstrated by peel testing. Thereafter, the patches are routinely observed and checked during routine walk-around inspections.